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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.                   | CONFIRMATION NO.       |
|---|-------------|----------------------|---------------------------------------|------------------------|
| 10/540,788  | 05/25/2006  | Tony D. Combe        | 15584.11                              | 7171                   |
| 22913   | 7590        | 01/09/2008           |                                       |                        |
| WORKMAN NYDEGGER<br>60 EAST SOUTH TEMPLE<br>1000 EAGLE GATE TOWER<br>SALT LAKE CITY, UT 84111 |             |                      | EXAMINER<br>KLIMOWICZ, WILLIAM JOSEPH |                        |
|   |             |                      | ART UNIT<br>2627                      | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>01/09/2008               | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |   |                                     |  |
|------------------------------|---|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/540,788    | <b>Applicant(s)</b><br>COMBE ET AL. |  |
|                              | <b>Examiner</b><br>William J. Klimowicz | <b>Art Unit</b><br>2627             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Drawings*

Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and *legal phraseology often used in patent claims, such as "means" and "said,"* should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### *Claim Objections*

Claims 4 and 13 are objected to because of the following informalities:

As per claim 4 (line 2), the word "windings" should be changed to the word --winding-- or the phrase "for a windings" should be changed to the phrase --for windings--.

With regard to claim 13 (line 2), the phrase "A second guide rail" implies that a "first guide rail" already has been recited in the claim language; such, however, is not the case.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7-10, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kin et al. (JP 09-293324 A).

As per claim 1, Kin et al. (JP 09-293324 A) discloses an Optical Mechanical Assembly for use in a portable optical data storage device, comprising a single piece chassis (22).

As per claim 2, further comprising mounting means (e.g., elements for mounting stepper motor (corresponding to (15), as seen in FIGS. 1, 2), sled (24), sled rails, (21), leadscrew (corresponding to (16), as seen in FIGS. 1, 2), spindle motor (45), etc. to the single chassis (22)) for mounting components of the portable optical storage device thereon.

As per claim 3 wherein, said mounting means is a mounting plate (portion of (22)) for a motor shaft of a disc spindle motor (45) - see FIG. 5.

As per claim 4, wherein, said mounting means is a mounting plate (portion of (22) for mounting motor (45)) for windings of a disc spindle motor (note that motor (45) inherently includes stator windings, as is well known).

As per claim 7, wherein said mounting means is a mounting plate (single plate chassis (22)) for a sled motor (24).

As per claim 8, wherein, said mounting means is a mounting plate (single plate chassis (22)) for a drive system (stepper motor, leadscrew and/or spindle motor for turntable (45)).

As per claim 9, wherein said mounting means is a mounting plate (single plate chassis (22)) for a leadscrew (16).

As per claim 10, wherein said mounting means is a mounting plate (single plate chassis (22)) for a first guide rail (one of rails (21)).

As per claim 12, wherein said mounting means is a mounting plate (single plate chassis (22)), wherein a sled motor (15) is attached to said mounting plate (single plate chassis (22)), the sled motor (15) being driven directly from a stepper motor (15) - which is the motor that drives the sled (24)) - onto a leadscrew (16).

As per claim 13, wherein a second guide rail (another of rails (21)) is mounted on the chassis (22), such that the sled motor (15) that drives the leadscrew (16) acts on an optical pickup (24) via the second guide rail (e.g., rail (210) closest to lead screw (16)) via a cam (sliding support of rail which slidingly contacts and interacts sled (24)) with to reduces vibrational susceptibility.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Kin et al. (JP 09-293324 A).

See the description of Kin et al. (JP 09-293324 A), *supra*.

As per claim 5, Kin et al. (JP 09-293324 A) remains silent with respect to wherein said mounting means is a mounting plate for a control circuit of a disc spindle motor.

As per claim 6, Kin et al. (JP 09-293324 A) remain silent with respect to wherein the chassis (22) is made from metal.

As per claim 11, Kin et al. (JP 09-293324 A) discloses wherein said mounting means is a mounting plate (single plate chassis (22)), wherein a sled motor (15) is attached to said mounting plate (single plate chassis (22)), the sled motor (15) being driven onto a leadscrew (16); Kin et al. (JP 09-293324 A) remains silent to wherein the sled motor (15) is driven onto the leadscrew (16) via a gearbox assembly.

Official notice is taken that mounting plates for a control circuit of a disc spindle motor provided thereto, as per claim 5, metal chassis's as per claim 6, and a gearbox (e.g., geartrain in lieu of a pulley drive), as per claim 11, are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the known structure of claims 5, 6 and 11, to the device of Kin et al. (JP 09-293324 A) as is well known in the art.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the known structure of claims 5, 6 and 11, to the device of Kin et al. (JP 09-293324 A) as is well known in the art, in order to provide the requisite control circuit for the spindle motor, as per claim 5, to provide a lightweight, yet sturdy and easily manufacturable metallic chassis as per claim 6, and provide a desired/prescribed rotation speed of the leadscrew via a gearbox, as per claim 11, as is well known, established and appreciated in the art.

Claims 14, 16, 18 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Kin et al. (JP 09-293324 A) in view of Nakajima et al. (JP 2002-230922 A).

See the description of Kin et al. (JP 09-293324 A), *supra*.

As per claim 14, Kin et al. (JP 09-293324 A) remain silent with respect to wherein a plurality of screws are used to allow for OPU tilt adjustment of the optical pickup (24).

Such structure, however, is well known. As just one example, Nakajima et al. (JP 2002-230922 A) discloses an analogous optical pickup having a single chassis (1), upon which is mounted guide rails (4) to the single chassis. A plurality of screws (6) are used to allow for OPU tilt adjustment of the optical pickup (2, 22) via changing the tilt of the guide rails (4) supporting the pickup (2, 22).

Additionally, as per claim 16, wherein the plurality of screws comprises three screws (6) - see FIG. 12 of Nakajima et al. (JP 2002-230922 A).

Additionally, as per claim 18, wherein the screws (6) are mounted on both ends of at least one of a first guide rail (4) and the second guide rail (4), and one end of at least one of the first guide rail (4) and the second guide rail (4) to allow for optical pickup tilt adjustment.

As per claim 19, wherein the screws are spring mounted - via spring (50) - see FIG. 5.

Given the express teachings and motivations, as espoused by Nakajima et al. (JP 2002-230922 A), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a plurality of screws are used to allow for OPU tilt adjustment of the optical pickup (24) of Kin et al. (JP 09-293324 A) as taught by Nakajima et al. (JP 2002-230922 A).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide a plurality of screws are used to allow for OPU tilt adjustment of the optical pickup (24) of Kin et al. (JP 09-293324 A) as taught by Nakajima et al. (JP 2002-230922 A) in order to “correctly position a pickup inclination adjusting mechanism on a chassis, to prevent a guide shaft from unexpectedly shaken and moved on a surface in nearly parallel with the chassis and to improve the resistance against an impact due to falling, etc., in a disk recorder or reproducer,” as expressly suggested by Nakajima et al. (JP 2002-230922 A) - see abstract of Nakajima et al. (JP 2002-230922 A).

Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kin et al. (JP 09-293324 A) in view of Nakajima et al. (JP 2002-230922 A) as applied to claim 14 above, and further in view of Takazawa (JP 2001-266513 A).



See the description of Kin et al. (JP 09-293324 A) in view of Nakajima et al. (JP 2002-230922 A), *supra*.

As per claim 15, Kin et al. (JP 09-293324 A) in combination with Nakajima et al. (JP 2002-230922 A) remains silent with respect to wherein the screws are mounted on both ends of a first guide rail, and one end of the leadscrew, and, as per claim 17, wherein the screws are mounted on both ends of the leadscrew and one end of a first guide rail.

Such structure, however, is well known. As just one example, Takazawa (JP 2001-266513 A) discloses an analogous optical device wherein a sled pickup is driven via a leadscrew, and, in order to adjust the height of the pickup, the leadscrew has a screw mounted at an end thereof.

Given the express teachings and motivations, as espoused by Takazawa (JP 2001-266513 A), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the sled pickup of Kin et al. (JP 09-293324 A), in combination with the teachings of Nakajima et al. (JP 2002-230922 A), to provide the capability of being able to adjust the height of the pickup, via screw mounted at the end of the leadscrew, as taught by Takazawa (JP 2001-266513 A), to the device of Kin et al. (JP 09-293324 A) in view of Nakajima et al. (JP 2002-230922 A).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the capability of being able to adjust the height of the pickup, via screw mounted at the end of the leadscrew, as taught by Takazawa (JP 2001-266513 A), to the device of Kin et al. (JP 09-293324 A) in view of Nakajima et al. (JP 2002-230922 A) in order to provide the capability

of adjusting the optical pickup, without impeding thinning of the device, as explicitly suggested by Takazawa (JP 2001-266513 A).

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Friday (7:30AM-6:00PM).

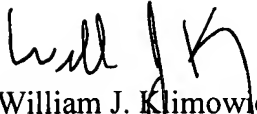
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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WJK

  
William J. Klimowicz  
Primary Examiner  
Art Unit 2627

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